

DRAFT FACT SHEET
NPDES PERMIT
DEPARTMENT OF THE ARMY
WALTER REED ARMY MEDICAL CENTER
WASHINGTON, DC
NPDES Permit Number: DC0000361

1. NOTICE OF PERMIT ISSUANCE

The United States Environmental Protection Agency (EPA), Region III has made the decision to issue an individual National Pollutant Discharge Elimination System (NPDES) permit to the United States Department of the Army, Walter Reed Army Medical Center (WRAMC), to control discharges of industrial process water from Building 2, 6900 Georgia Avenue, NW, via the DC Municipal Separate Storm Water System (MS4), to Rock Creek, Washington, DC.

2. PERMITTING AUTHORITY

The NPDES permitting authority is: U.S. Environmental Protection Agency, Region III, NPDES Permits Branch (3WP41), 1650 Arch Street, Philadelphia, PA 19103. The permit writer is: Peter Weber (215-814-5749), NPDES Permits Branch.

3. PERMITTEE

The permittee is: Department of the Army, Headquarters, U.S. Army Garrison, WRAMC, 6900 Georgia Avenue, NW, Washington, DC 20307-5001. The contact person is Joseph Fromal, Quality Assurance Evaluator, (202) 782-0090.

4. EFFECTIVE DATE

The permit will become effective 30 days after the final determination is made, unless a request for an evidentiary hearing is submitted within 30 days after receipt of the final determination.

5. PUBLIC NOTICE DATE

Public notice was advertised on February 1, 2008.

6. BRIEF DESCRIPTION OF THIS ACTION

US EPA Region III, which is the NPDES permitting authority for the District of Columbia, proposes to issue a new individual NPDES permit to regulate industrial process water discharges, of an estimated 53,280 gallons per day, generated by WRAMC Building 2 heating and cooling activities. The process water is comprised mostly of air dryer cooling water with several other minor low-volume process waters. This process water is conveyed to a DC

Municipal Separate Storm Water System (MS4) sewer and after approximately one half mile it discharges to Rock Creek, in Washington, DC.

7. FACILITY DESCRIPTION

WRAMC is located in Washington, DC, east of Rock Creek, on the west side of Georgia Avenue. WRAMC is a general medical and surgical hospital, SIC code 8062. The WRAMC impervious surface area is approximately 75 acres. Building 2 is a multi-story hospital equipped with floor drains. The drainage area is approximately 230,400 square feet, comprising Building 2. This building was constructed in 1978, and has functioned as the new hospital building from that time to the present. Sanitary waste is discharged separately to the DC sanitary sewer system.

8. DISCHARGE DESCRIPTION AND RECEIVING WATERS

a. Sources and Flows

This permit establishes limits and monitoring requirements for the discharge of industrial process water from Building 2, the Heaton Pavilion, located in the northeastern side of WRAMC. The industrial process water is derived from the building's heating and cooling system, which includes air dryers, air compressors, and a steam line. The building's water supply comes from the DC potable water system. The cooling, blow off and steam condensate associated with these systems are the sources of the discharge. The mechanical, heating and cooling services are located below grade in an interstitial floor designated as 9 ½ floor. Building 2 is divided into quadrants. Industrial water is collected from two building quadrants, the southeast and southwest. Water from the heating and cooling activities is captured by a series of drains located near the cooling apparatus, which lead to pump stations. The pumps and associated wet wells are also located on the interstitial floor. Load-activated pumping then sends the collected water from the wet wells to the WRAMC sewer line outside the building. Manhole Number 169 south of Building 2 provides the monitoring point for this discharge.

Rather than being discharged directly to Rock Creek, which is the nearest waterbody, the Building 2 discharge connects to the District of Columbia storm sewer line as it traverses the WRAMC property. This storm sewer is part of the DC Municipal Separate Storm Water System (MS4) NPDES Permit No. DC0000221. This storm sewer conveys this water to a discharge point (box culvert) on the east side of Rock Creek north of Military Road.

Besides the industrial process water, there is storm water which is also sent to the DC MS4 storm sewer. The storm water is gathered from the roof of Building 2, and conveyed to the same southwest and southeast wet wells which collect the process water. The roof capture area is approximately 155,000 sq. ft. The MS4 permit explicitly identifies roof drainage as a permitted flow, "when properly managed so that water quality is not impaired and that the requirements of the Clean Water Act and EPA regulations are met" (Part I.B, second paragraph). The storm water flow does not come into contact with any industrial process water or any other water until it is fed to the wet wells in interstitial floor 9 ½.

Industrial process water and storm water flow go by sewer line from the facility to the DC MS4 NPDES Outfall 119 and thence to Outfall 122, with discharge to Rock Creek. The discharge point, approximately one-half mile from WRAMC, is near Sherrill Drive's crossing of Rock Creek.

b. Discharge Description

According to the WRAMC application for a NPDES permit, there is an estimated 53,280 gallons per day of discharged water, as follows. This discharge is 0.08 cubic feet per second (cfs) to a receiving water with an average of 71.7 cfs. The effluent characteristics are also presented here.

<u>Industrial Water (continuous)</u>	<u>Average Flow</u>
Air dryer cooling	30 gallons per minute (gpm)
Steam condensate	5 gpm
Air compressor cooling	2 gpm
Air compressor blow off	1 gallon per day (gpd)
<u>Total (converted to gpd)</u>	<u>53,281 gallons per day</u>

Monitoring at Southwest Wet Well, Interstitial Floor 9 ½ , Building 2, WRAMC - Industrial Process Waste Water				
Parameter	Maximum Daily	Average Monthly	Number of Sampling Events	Data Source
Temperature, degree C	23	---	2	NPDES Application Form 2C
pH	7.7 min	7.8 max	2	NPDES Application Form 2C
Oil & Grease	<5 mg/l	---	1	NPDES Application Form 2C
Ammonia (as N)	<1.0 mg/l	---	1	NPDES Application Form 2C
Arsenic, Total	<0.050 mg/l	---	1	NPDES Application Form 2C
Cadmium, Total	<0.01 mg/l	---	1	NPDES Application Form 2C
Chromium, Total	<0.02 mg/l	---	1	NPDES Application Form 2C
Chlorine, Total Residual	2.6 mg/l	---	2	NPDES Application Form 2C
Chloroform	0.0000098 mg/l	---	1	NPDES Application Form 2C
Copper, Total	0.014 mg/l	---	1	NPDES Application Form 2C
Cyanide, Total	0.072 mg/l	---	1	NPDES Application Form 2C
Iron, Total	0.087 mg/l	---	1	NPDES Application Form 2C
Lead, Total	<0.10 mg/l	---	1	NPDES Application Form 2C
Mercury, Total	<0.00002 mg/l	---	1	NPDES Application Form 2C
Nickel, Total	<0.02	---	1	NPDES Application Form 2C
Selenium, Total	<0.50 mg/l	---	1	NPDES Application Form 2C
Silver, Total	<0.02		1	NPDES Application Form 2C
Zinc, Total	<0.02 mg/l	---	1	NPDES Application Form 2C

Storm Water

Precipitation events create a flow from the roof which is captured by the building floor drains, and is sent to the pump stations located in the Southeast and Southwest quadrants of Building 2, as described in Section 8.a.

c. Receiving Waters

The receiving water for these discharges is Rock Creek. The Rock Creek basin is part of the Middle Potomac-Anacostia-Occoquan watershed (Hydrologic Unit Code 02070010). Rock Creek originates in Maryland and flows through the District of Columbia to the Potomac River in North West Washington.

According to the District of Columbia Water Quality Standards, §1101.2, Rock Creek has the following designated and current beneficial water uses.

Class A - Primary Contact Recreation

Class B - Secondary Contact Recreation and Aesthetic Enjoyment

Class C - Protection and propagation of fish, shellfish and wildlife

Class D - Protection of human health related to consumption of fish and shellfish

Class E - Navigation

The current water beneficial uses for this stream are:

Class B - Secondary Contact Recreation and Aesthetic Enjoyment

Class C - Protection and propagation of fish, shellfish and wildlife

Class D - Protection of human health related to consumption of fish and shellfish

Class E - Navigation

The average annual flow at the U.S. Geological Survey (USGS) gauge station, just upstream from the WRAMS discharge, was 71.7 cfs for the last 10 years. The USGS gauge 01648000, Rock Creek at Sherrill Drive, has records from 1930 to the present. The average discharge rate from WRAMC would be 0.08 cfs. The lowest annual flow was 16.1 cfs in 1931. Therefore the WRAMC flow contribution to Rock Creek is a minor addition, averaging approximately one-tenth of one percent over the last ten years.

Rock Creek and its tributaries were identified as having impaired waters (Section 303d list of the Clean Water Act) for metals, organics and bacteria). Three Total Maximum Daily Loads (TMDL) were developed for those waterbodies which would not attain water quality standards after application of technology-based and other required controls. Each TMDL sets the quantity of a pollutant that may be introduced into a waterbody without exceeding the applicable water quality standard. The three Rock Creek Watershed TMDLs were established in 2004 for fecal coliform, metals (copper, zinc, lead, mercury) and organics. No wasteload allocations were assigned to individual dischargers. This facility discharges to the main stem of Rock Creek, in the Upper Rock Creek portion of the watershed. This facility does not discharge to any of the

tributaries to Rock Creek, so the TMDL established for Rock Creek Tributaries does not apply. Therefore, the Rock Creek mainstem TMDLs for Metals and Fecal Coliform Bacteria are the applicable TMDLs for this facility. Available information does not indicate that the permitted discharge is inconsistent with these TMDLs. However, this permit will require monitoring to determine whether this discharge is consistent with the TMDLs.

9. DISCHARGE LIMITS

The proposed discharge limits are derived from Best Professional Judgment (BPJ) for this industrial process water, the need to be consistent with TMDLs established for the receiving water, and an evaluation of sampling data provided in the permit application. Limitations are derived from the use of BPJ for low volume wastes, and cooling and blowdown activities, which characterize this process water. BPJ was applied to determine parameters and monitoring requirements. More than eighty percent of the daily flows are from air dryer cooling.

Because the sampling results provided in the permit application were based on one sample, except for two samples for temperature, pH and Total Residual Chlorine, the permit is requiring four samples per year, to be sampled once every three months, for the duration of the permit.

Outfall 001 (at Monitoring Point 101)

Parameter	Discharge Limitations				Monitoring Requirements	
	lb/day		other units		Frequency	Sample*
	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily		
Flow	N/A	N/A	monitor only	monitor only	1/qtr	estimated
pH	N/A	N/A	6.0 S.U.	8.5 S.U.	1/qtr	grab
BOD5	N/A	N/A	Monitor	Monitor	1/qtr	grab
Total Suspended Solids	N/A	N/A	Monitor	Monitor	1/qtr	grab
Oil and Grease	N/A	N/A	10 mg/l	10 mg/l	1/qtr	grab
Fecal Coliform	N/A	N/A	Monitor	Monitor	1/qtr	grab
Total Residual Chlorine	N/A	N/A	Monitor	Monitor	1/qtr	grab
Copper, Total	N/A	N/A	Monitor	Monitor	1/qtr	grab
Zinc, Total	N/A	N/A	Monitor	Monitor	1/qtr	grab
Cyanide, Total	N/A	N/A	Monitor	Monitor	1/qtr	grab

10. GENERAL CONDITIONS

NPDES regulations found at 40 C.F.R. 122.41 and 122.42 set forth a set of pre-established conditions which must be incorporated into every NPDES permit. They ensure uniformity and consistency of all NPDES permits issued by authorized states and EPA regional offices. They delineate the legal, administrative and procedural requirements of the permit.

The definitions found in Part II are standard for all NPDES permits.

General conditions found at Part III are standard for all NPDES permits. Condition 11, Transfer of Permit, would be used in the event of any change in ownership or control of this facility. WRAMC is on the Base Realignment and Closure list. WRAMC is to vacate the facility, date uncertain but likely during the term of this permit. The facility is to be transferred to other federal agencies.

11. SPECIAL CONDITIONS

The Special Conditions found in Part IV are designed to provide an additional measure of control, beyond numeric effluent limitations for the reduction of discharges of pollutants.

Part A. Relationship to DC Municipal Separate Storm Sewer System (MS4), NPDES Permit No. DC0000221. The WRAMC discharge will be routed through a portion of the MS4, prior to discharge to Rock Creek.

Part B. Prohibition of discharge of any hospital wastes

Part C. Best Management Practices

Consultation with the United States Fish and Wildlife Service and National Marine Fisheries Service:

The Endangered Species Act requires all federal agencies to consult with the US Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) when taking an action that may adversely affect endangered and threatened species. To meet our NPDES Permit obligations, the Region has requested informal consultation with the FWS and the NMFS although no threat to endangered or threatened species has been identified within the permit area. The National Marine Fisheries Service (NMFS) has indicated that the endangered shortnose sturgeon occurs in the Potomac River drainage area and may occur within the District of Columbia. The U.S. Fish and Wildlife Service has indicated that Hay's Spring Amphipod, a federally listed endangered species, occurs at several locations in the District of Columbia.

12. PUBLIC NOTICE

EPA is issuing public notice to commence a 30-day period of public comment on this draft fact sheet and permit. The draft fact sheet and permit are available via this mailing and will also be available on the Regional website. The first day after these documents are first offered on the website will be the first day of the public comment period. During the public comment period, any interested person may submit written comments on the draft permit and/or fact sheet to the EPA Region III contact listed above. All persons wishing to comment on any condition of the draft NPDES permit, fact sheet or the Director's tentative decision to issue this permit, must raise all reasonably ascertainable issues and submit all reasonable arguments supporting their position in writing on or before the public notice expiration date. All comments should include the name, address and telephone number of the commenter, a concise statement of comment and the relevant facts upon which it is based.

During the public comment period, any person may request a public hearing to clarify issues involved in the permit decision. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised at the hearing.

Upon the expiration date of the public notice, the Director, Office of Water, Region III, shall make a final determination with respect to permit issuance. The tentative determination contained in the draft permit shall become the final permit if no substantive comments are received during the public notice period.

A copy of the draft permit, this fact sheet and the administrative record are available at the Martin Luther King, Jr., Library, 901 G Street, N.W. Washington, D.C. 20001, during normal business hours. Copies of the draft permit and fact sheet are available on the Region III website at www.epa.gov/region03/index.htm. In addition, copies of the draft permit and fact sheet will be mailed as requested in writing or by telephone call to Peter Weber at the address and telephone number listed above.

A request was made to the District of Columbia's Department of the Environment for Section 401 water quality certification concerning the permit. Any inquiries concerning the certification should be submitted to:

Collin R. Burrell, Associate Director
Water Quality Division
Bureau of Environmental Quality
Natural Resources Administration
District of Columbia District Department of the Environment
51 N Street, N.E., 5th Floor
Washington, D. C. 20002